# 12.0 Appendix 2

**Drug Shortage Prevention and Response Plan**

*Risk Triage Approach for Proactive Management of Drug Shortage*

*(Template is part of TR-68 (Revised), © 2024 PDA, Inc.)*

Complete this triage model for each dosage form by assessing the product categorization, the impact of the shortage on patients, and the end-to-end controls used to prevent or mitigate the risk. Use the form proactively to identify ways to prevent a shortage or reactively to respond to a shortage.

## Basic Data

|  |  |  |  |
| --- | --- | --- | --- |
| API name |  | Drug Product Name |  |
| Pharmaceutical Form and Strengths |  | ATC (Anatomical Therapeutic Chemical) Code |  |
| Pack Size(s) |  | Therapeutic Indication(s) |  |
| Route(s) of Administration |  | Contact Person/Contact Information |  |
| Other Information1 |  | | |

1 Other information available may include, for example, countries where marketed, reference to market authorization; in case of response plan: affected by the supply disruption, shortage details including impacted countries, expected end date.

## Impact to Patient

Mark the Risk Level as **A**, **B**, or **C** based on the product’s therapeutic use and availability of alternative therapies using the criteria below.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | | **Availability of Alternatives** | | |
| No Alternatives Available | Alternative Products Available/API Available | Same Product/API Available |
| **Therapeutic Use & Consequences if Alternate Product not Available** | Medically necessary product, life supporting or life sustaining | Fatal or severe irreversible harm if the patient is not treated with the product | Risk Level A | Risk Level A | Risk Level B |
| Acute short term or chronic long term | Severe harm but reversible if patient is not treated with the product | Risk Level A | Risk Level B | Risk Level C |
| Other indications | Inconvenience if patient is not treated with the product | Risk Level B | Risk Level C | Risk Level C |

## Risk Priority Level (1, 2, or 3) Based on Likelihood of a Shortage

Based on the Risk Level (A, B, or C) identified in **Section B,** the probability of a shortage, and the consideration of the drug shortage prevention controls currently in place and their likely effectiveness, indicate the Risk Priority Level (1, 2, or 3) using the criteria below.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | **Likelihood of Shortage** | | |
| High | Medium | Low |
| **Therapeutic Use & Consequences if Product not Available** | Risk Level A | Risk Priority Level 1 | Risk Priority Level 1 | Risk Priority Level 2 |
| Risk Level B | Risk Priority Level 1 | Risk Priority Level 2 | Risk Priority Level 3 |
| Risk Level C | Risk Priority Level 2 | Risk Priority Level 3 | Risk Priority Level 3 |

## Risk Control Activities for a Proactive Drug Shortage Prevention Plan

Based on the potential Risk Priority Level (1, 2, or 3), describe suggested controls to be established, the communication plan (in the event of a shortage), and other considerations. This can be done either in text or table form. See a potential table format below.

|  |  |
| --- | --- |
| **Risk Priority** | **Suggested Controls / Preventive Actions** |
| **Level 1** | … |
| **Level 2** | … |
| **Level 3** | Generally accepted risk level |

## Risk Control Activities for a Drug shortage Response Plan

Develop a drug shortage response plan for implementation in the event of a drug shortage and discuss the plan, as needed, with the relevant health authorities.

* 1. Identify the reason(s) for the shortage or temporary disruptions (check all that apply):
     + Manufacturing Issues

Industry, e.g., capability, capacity, storage, transport/distribution/shipment, regulatory and quality compliance, CDMO

Component, e.g., raw materials, API, excipient, equipment

Government, e.g., changes in legislation or guidance, enforcement, intellectual property rights protection

Multistakeholder, e.g., infrastructure (e.g., power supply), registration process

Time to manufacture and batch release

* + - Business Issues

Unexpected product demand

Industry, e.g., quotas

Regulatory delay

Wholesale, distribution, e.g., parallel trade, demand, known real manufacturer

Government, e.g., national protectionism, export ban, health economics, channel strategies

Multistakeholder, e.g., commercial priorities, stockpiling, number of competitors

* + - Economic and Geographic Issues

Industry, e.g., market withdrawals, delayed introduction

Wholesale, distribution, e.g., commercial tendering

Governments, e.g., price reductions, tax structure, reference pricing, reductions in spending

Multistakeholder, e.g., exchange rate, tightening of payment, payment delay, affordability

* + - Reliability Issues

Wholesale, distribution, healthcare provider, e.g., off-label use, compassionate use, competitor sourcing

Governments, e.g., environmental standards

Multistakeholder, e.g., competent staff, illegal product introduction, theft, stolen material, counterfeits, substandard, national disasters, health emergencies, pandemic, demand increase

* + - Others, please specify
  1. Assess risks to patients from the shortage per **Section B** (attach risk assessment), including the expected duration of the situation and the patient groups likely to be affected by the shortage (e.g., neonates, people with diabetes).
  2. Create (and attach) a short-term action plan, based on **Section D** and/or discussions with rel- evant health authorities, to include actions that can be taken to address the shortage in the near term (e.g., when alternative therapies are available).
  3. Execute the communication plan based on the shortage’s characteristics (e.g., Dear Health Care Provider letters, informed consent forms, or patient letters)
  4. Create (and attach) a longer-term action plan based on **Section D** above, including actions and timelines needed to return the product supply to normal.

## Risk Review and Updates

Identify the triggers for reviewing and updating the Drug Shortage Prevention and Response Plan.

Check the trigger(s) that will drive reviews and revisions of the Drug Shortage Prevention and Response Plan:

New product indication

New market approval

Approval of a new alternative or unlicensed product

Shortage of an alternate product

New risks to product quality or availability

Shutdown of a facility or withdrawal of GMP Certificate

Inventory or safety stock levels below target level

Increase in product usage volumes

Others, please specify

1. **Approvals Required**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name Title and Function Signature Date** | | | |
|  | Person Responsible |  |  |
|  | QA Decision-Maker |  |  |
|  | Senior Management Function |  |  |